

Rpt. 13.

No. 15875

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 14-8- 1963 When handed in at Local Office _____ 19____ Port of BOMBAY

No. in Survey held at BOMBAY Date, First Survey 19-4-63 Last Survey 30-5-19 63

Reg. Book. _____ (No. of Visits 10)

_____ on the "VARIDA" Tons { Gross 416.31
Net _____

Built at BOMBAY By whom built MAZAGON DOCK LTD. Yard No. 196 When built 1963

Owners INDIAN NAVAL HEADQUARTERS Port belonging to _____

Installation fitted by MAZAGON DOCK LTD. When fitted 1963

Is vessel equipped for carrying Petroleum in bulk NO Is vessel equipped with D.F. NO E.S.D. NO Gy.C. NO Sub.Sig. NO Radar NO

Plans, have they been submitted and approved YES System of Distribution POWER 3 PHASE LIGHTS 2 PHASE Voltage of Lighting 230

Heating 230 Power 400 D.C. or A.C., Lighting AC Power AC If A.C. state frequency 50 CYCLES

Prime Movers, has the governing been found as per Rule when full load is thrown on and off YES Are turbine emergency governors fitted with a trip switch - Generators, are they compound wound -, and level compounded under working conditions -

Are the generators arranged to run in parallel NO Is the compound winding connected to the negative or positive pole -

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing NONE Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule YES Position of Generators PORT & STARBOARD IN ENGINE ROOM AT LOWER PLATE LEVEL.

is the ventilation in way of generators satisfactory YES are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil YES Switchboards, where are main switchboards placed ENGINE ROOM PORT SIDE AFT AT LOWER PLATE LEVEL

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil YES, what insulation is used for the panels DEAD FRONT CONSTRUCTION, if of synthetic insulating material is it an Approved Type -, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the construction as per Rule, including locking of screws and nuts YES Description of Main Switchgear for each generator and arrangement of equaliser switches Triple pole air circuit breaker with thermal time lag overload trips and magnetic definite time short circuit trip for each generator with interlock to prevent parallel operation with shore supply - triple pole circuit breaker for shore supply and the switch and fuse gear (or circuit breakers) for each outgoing circuit. Knife switches and fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 2 @ 200A
2 @ 500V 2 Watt Meter
ammeters 1 @ 250V voltmeters 2 synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided Lamps with push switch for earth connection Preference Tripping, state if provided None, and tested -

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YES

make of fuses Siemens, English Elect-rlc are all fuses labelled YES If circuit breakers are provided for the generators, at what overload do they operate 150%, and at what current do the reverse current protective devices operate None fitted Cables, are they insulated and protected as per Rule YES

if otherwise than as per Rule are they of an Approved Type -, state maximum fall of pressure between bus bars and any point under maximum load 2 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends None fitted

Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage YES, are any cables laid under machines or floorplates NO, if so, are they adequately protected - State type of cables (if in conduit this should also be stated) in machinery spaces VIR, LC & Wire Braided, galleys VIR, LC & Wire Braided and laundries - State how the cables are supported or protected Main Runs (Braided cable) clipped to Steel support bridges welded to structure, cables to fore end on deck in GI Conduit, cables for final sub circuits clipped to perforated G I Trays or on teak wood battens.

Are all lead sheaths, armouring and conduits effectually bonded and earthed YES Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands YES, where unarmoured cables pass through beams, etc., are the holes effectively bushed YES Refrigerated chambers, are the cables and fittings as per Rule No Refrigerated Chambers

Have refrigeration fan motors been constructed under survey - and test certificates supplied -

Are the motors accessible for maintenance at all times -

"VARIDA" MAZAGON DOCK LTD. YARD NO.196

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

R. B. Brown

MANAGING DIRECTOR
MAZAGON DOCK LTD.

Electrical Contractors. Date. 23rd August '63.

COMPASSES.

Have the compasses been adjusted under working conditions

R. B. Brown

MANAGING DIRECTOR,
MAZAGON DOCK LTD.

Builder's Signature. Date. 23rd August '63.

Have the foregoing descriptions and schedules been verified and found correct. YES

Is this installation a duplicate of a previous case. NO If so, state name of vessel.

Plans. Are approved plans forwarded herewith. YES If not, state date of approval.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. YES

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.) The auxiliary electrical equipment of this vessel has been installed under Special Survey in accordance with the approved drawings, the Rules of the Society and the Secretary's letters. It has been tested under full working conditions and found satisfactory. The materials and workmanship are good.

The installation is eligible in my opinion for a classed vessel when the following has been carried out -

Main cables from generators to switchboard replaced by cables of rule carrying capacity.

Ship to Ship supply circuit installation.

Notice board fitted at shore to ship connecting box.

ELECTRICAL DRAWINGS :

- H2-351 222 - Main Switchboard wiring diagram. ✓
- H0-263 1256 - Power Plant. ✓
- H2-551 1286 - Main Switchboard-View. ✓
- H0-351 268 - Main Switchboard Wiring. ✓
- HL-551 1286 - Main Switchboard List. ✓

Certificates :

- Main Switchboard - Hamburg Cert. 62/138 ✓ - 29-5-62
- Windlass Motor - Berlin Cert. C 61/235 ✓ - 22-8-61.
- Pleuger Rudder Motor - Hamburg Cert. 61/430 ✓ - 7-2-61.

Works Test Certificates :

- Starbd. cargo pump motor. ✓
- Port cargo Pump motor. ✓
- General Service Pump motor. ✓
- Steering gear convertor set - 2 motors 2 generators. ✓
- Port & Starbd. Steering Gear Pumps. ✓
- Main Alternator - Port. ✓
- Main Alternator - Starbd. ✓

R. B. Brown

Total Capacity of Generators 144 Kilowatts.

The amount of Fee ... £. 2142/- : When applied for, 23/8/1963

Travelling Expenses (if any) £. 100/- : When received, 19.

R. McIntosh
Surveyor to Lloyd's Register of Shipping.
(R. McINTOSH).

FRIDAY 13 SEP 1963

Committee's Minute

Assigned *Defence*

501.6.6. - Transfer. (NAME AND PRINTED IN ENGLISH) (The Surveyors are requested not to write below the space for Committee Minutes.)